

GENERAL NOTES

LEGAL DESCRIPTION: TR. G, ALBUQUERQUE WEST SUBDIVISION, FILED 3-8-90, VOL. C90, FOLIO 67.
SITE AREA: 3.7101 AC. (PHASE 1: 2.00 AC., PHASE 2: 1.71 AC.).
BENCHMARK: ACS B.M. NO. "2-C12", A 1 3/4" ALUMINUM DISK SET ON TOP OF THE CURB
AT THE NW RETURN OF PARADISE HILLS BLVD. AND DAVENPORT STREET. ELEV.: 5175.79
T.B.M.: RAILROAD SPIKE IN POWER POLE APPROXIMATELY 1 BLOCK EAST OF GOLF
COURSE ROAD ON SOUTH R.O.W. LINE OF PARADISE BLVD. ELEV.: 5199.82
FLOOD HAZARD STATEMENT: AS SHOWN ON PANEL 08 OF THE FEMA FLOOD INSURANCE
RATE MAPS, THIS SITE IS NOT WITHIN A DESIGNATED FLOOD HAZARD AREA.
GRADING HISTORY: SITE WAS INCLUDED IN THE MASS GRADING OF RIVERVIEW T.P.
THE WESTERLY PROPERTY LINE WAS INTENDED AS THE GRADE BREAK BETWEEN
PROPERTIES RESULTING IN NO OFF-SITE FLOWS ENTERING UPON THE SITE.

HYDROLOGY - DATA:
PHASE 1: 2.00 AC. PHASE 2: 1.71 AC.
(A.1) PRECIPITATION ZONE 1
(A.2) DESIGN STORM P360 = 2.20 IN (100-YEAR)
(A.3.1) LAND TREATMENT (TABLE A.4) - EXISTING: A
(A.3.2) PROPOSED LAND TREATMENT (TABLE A.4) - AND EXCESS PRECIPITATION (EP)
PRECIPITATION (EP)
(TABLE A.8) - 100-YEAR
TREATMENT PH.1(Ac) PH.2(Ac) EP(N)
A 0 1.61 0.44
B 0.64 0 0.67
C 0.28 0 0.99
D 1.08 0.10 1.97
2.00 AC. 1.71 AC.
(A.5) DETERMINE VOLUMES

PHASE 1:
WEIGHTED E = $(0.67(0.64) + (0.99(0.28) + (1.97(1.08))$
2.00
PHASE 1 E = 1.42 IN
VOLUME = $(1.42 \text{ IN})(2.00 \text{ AC.})(43560 \text{ SF/AC.})(1/12) = 10,309 \text{ CF}$
PHASE 2:
WEIGHTED E = $(0.44(1.61) + (1.97(0.10))$
1.71
PHASE 2 E = 0.53 IN
VOLUME = $(0.53 \text{ IN})(1.71 \text{ AC.})(43560 \text{ SF/AC.})(1/12) = 3,290 \text{ CF}$
TOTAL SITE = 13,599 CF

LEGEND

- 5185 DRAINAGE SWALE
- 75 EXISTING CONTOUR
- PROPOSED CONTOUR
- EDGE OF ASPHALT
- DI PROP. DRAIN INLET
- TC 63.85 FL 63.18 PROP. TOP OF CURB ELEV.
- TSW TOP OF SIDEWALK ELEV.
- TA TOP OF ASPHALT ELEV.
- RD ROOF DRAIN

GENERAL NOTES (CONT.)

THE FLOW RATE Q_{100} IS COMPUTED BELOW:

PHASE I (DEVELOPED):

$Q_{100} = Q_{100} A_B + Q_{100} A_C + Q_{100} A_D$
 $= 2.03(0.64) + 2.87(0.28) + 4.37(1.08) = 6.82 \text{ CFS}$
BASIN A $\Rightarrow$ AREA = 0.95 AC
 $Q_{100} = 3.24 \text{ CFS}$
BASIN B $\Rightarrow$ AREA = 1.05 AC
 $Q_{100} = 3.58 \text{ CFS}$

PHASE II (UNDEVELOPED):

$Q_{100} = Q_{100} A_A + Q_{100} A_D$
 $= 1.29(1.61) + 4.37(0.10) = 2.51 \text{ CFS}$

THE TOTAL AMOUNT OF FLOW ALLOWED FROM TRACT G IS 11.6 CFS.
THIS DISCHARGE WAS CALCULATED BY COMMUNITY SCIENCE CORP
WHEN THEY PREPARED THE DRAINAGE REPORT FOR RICHLAND HILLS
UNIT ONE. (C-12/06, DATED 04-05-94.)

THE PROPORTIONATE AMOUNT THAT CAN BE DISCHARGED FROM PHASE
I IS 6.25 CFS. THE DETENTION REQUIRED TO REDUCE THE 6.82 CFS TO
6.25 CFS IS PROVIDED BY THE SMALL POND AT THE EAST CORNER OF
THE SITE. THE POND DRAINS AT $Q_{max} = 1.18 \text{ CFS}$ INTO THE VALLEY
GUTTER AT THE INTERSECTION OF MARNA LYNN AVE & EDUCATION
PLACE. THE REMAINING 3.58 CFS IS ALLOWED FREE DISCHARGE THRU
THE SITES TWO DRIVEWAYS.

THE DRAIN PIPE CALCULATIONS ARE PRESENTED BELOW:

ASSUME ORIFICE FLOW UNDER 3' OF HEAD.
TRY 2"-4" PVC PIPES.

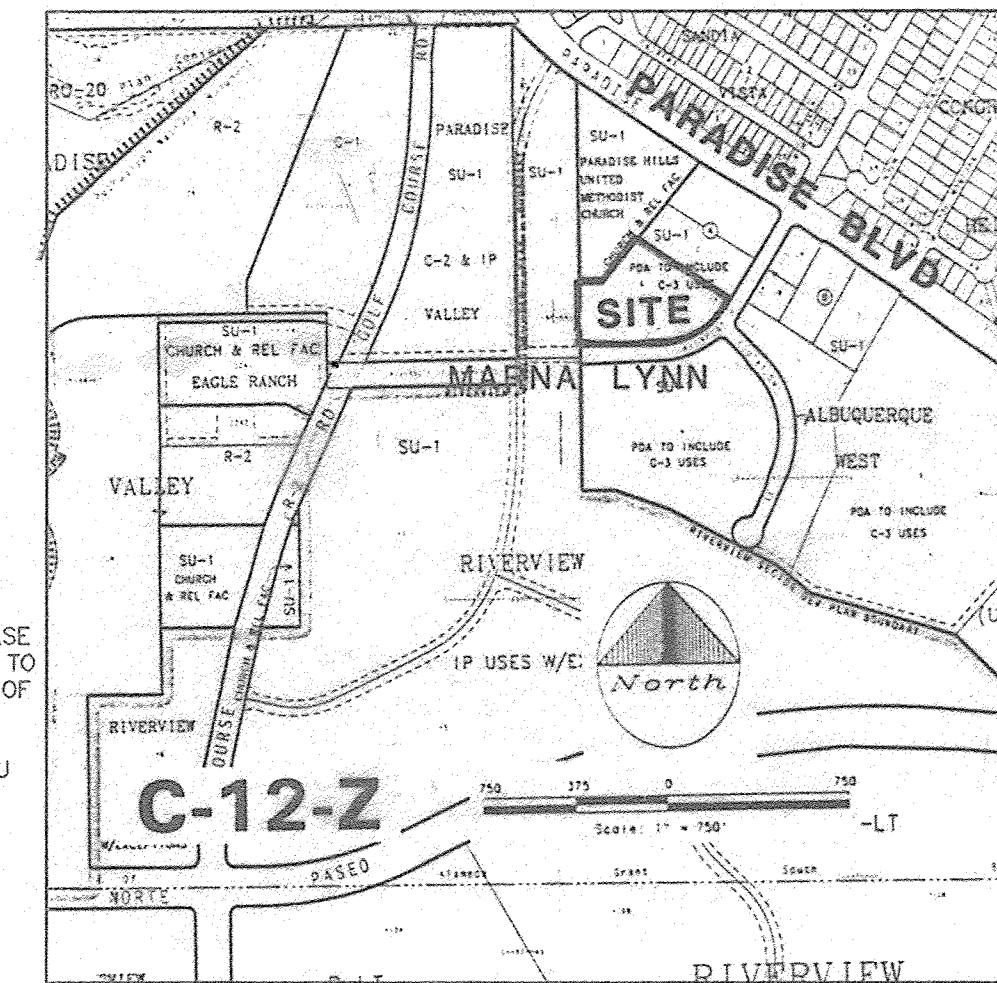
$A = 0.087 \times 2 = 0.174 \text{ FT}^2$

$Q = C_d A \sqrt{2gh}$

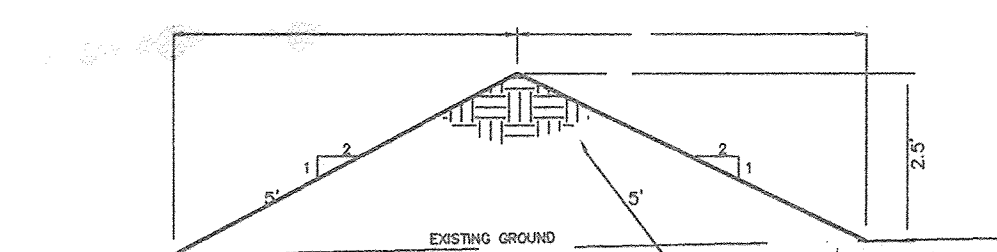
$Q = 0.60(0.174) \sqrt{2(32.2)(3)}$

$Q_{cap} = 1.18 \text{ CFS OK}$

USE 2"-4" DRAIN PIPES AT S = 2.0%



VICINITY MAP



EROSION CONTROL

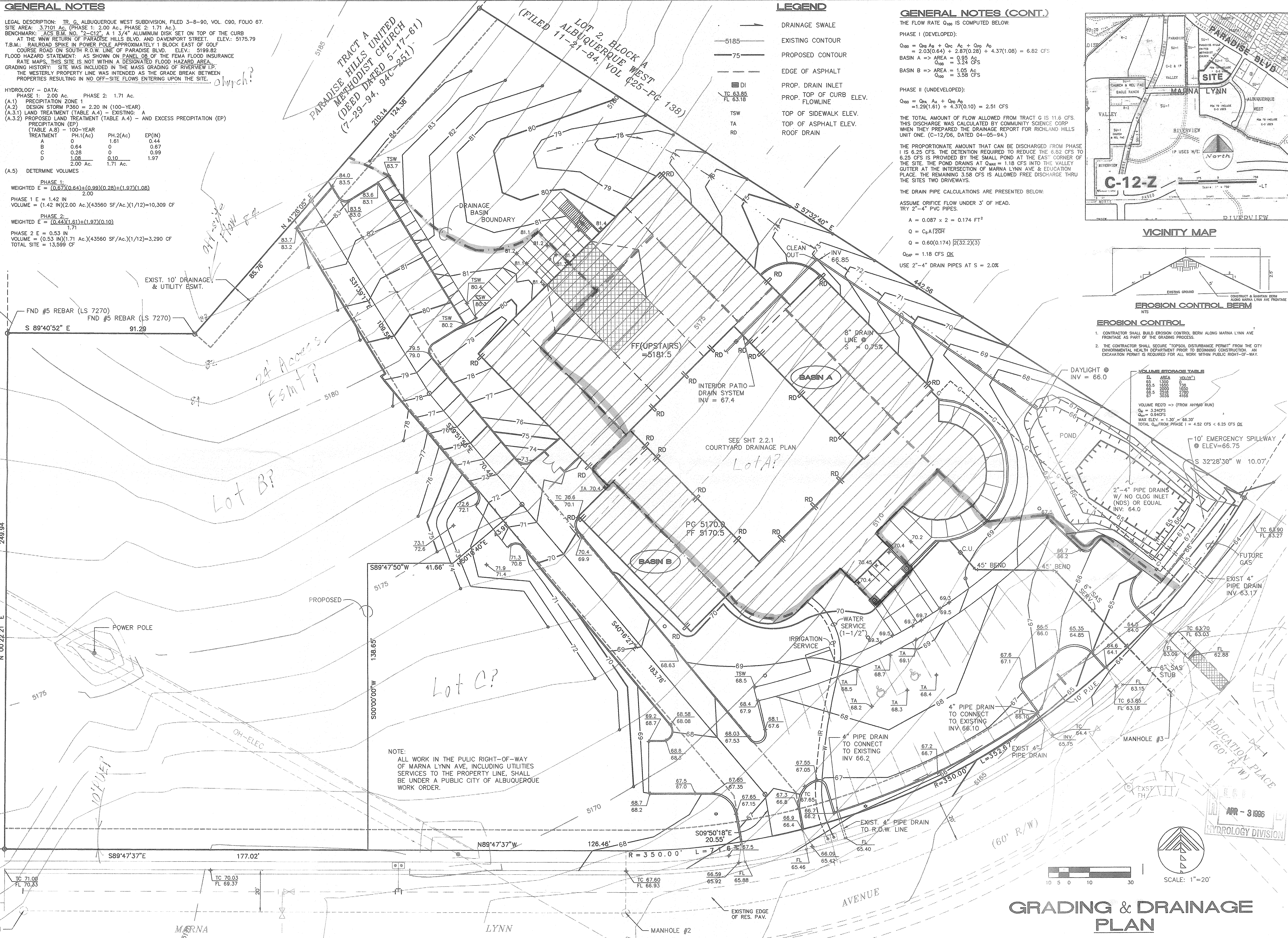
EROSION CONTROL

- CONTRACTOR SHALL BUILD EROSION CONTROL BERM ALONG MARNA LYNN AVE FRONTAGE AS PART OF THE GRADING PROCESS.
- THE CONTRACTOR SHALL SECURE "TOPSOIL DISTURBANCE PERMIT" FROM THE CITY ENVIRONMENTAL HEALTH DEPARTMENT PRIOR TO BEGINNING CONSTRUCTION. AN EXCAVATION PERMIT IS REQUIRED FOR ALL WORK WITHIN PUBLIC RIGHT-OF-WAY.

VOLUME STORAGE TABLE

EL	AREA	VOL (H ³)
65.0	1000	750
65.5	1000	1500
66.0	1000	2250
66.5	1000	3000
67.0	1000	3750

VOLUME REQ'D $\Rightarrow$ (FROM ANYHOW RUN)
 $Q_{100} = 3.24 \text{ CFS}$
 $Q_{max} = 0.84 \text{ CFS}$
MIN ELEV. = 1.30' = 66.30'
TOTAL Q_{100} FROM PHASE I = 4.52 CFS < 6.25 CFS OK



NOTE:
ALL WORK IN THE PUBLIC RIGHT-OF-WAY
OF MARNA LYNN AVE, INCLUDING UTILITIES
SERVICES TO THE PROPERTY LINE, SHALL
BE UNDER A PUBLIC CITY OF ALBUQUERQUE
WORK ORDER.

GRADING & DRAINAGE
PLAN

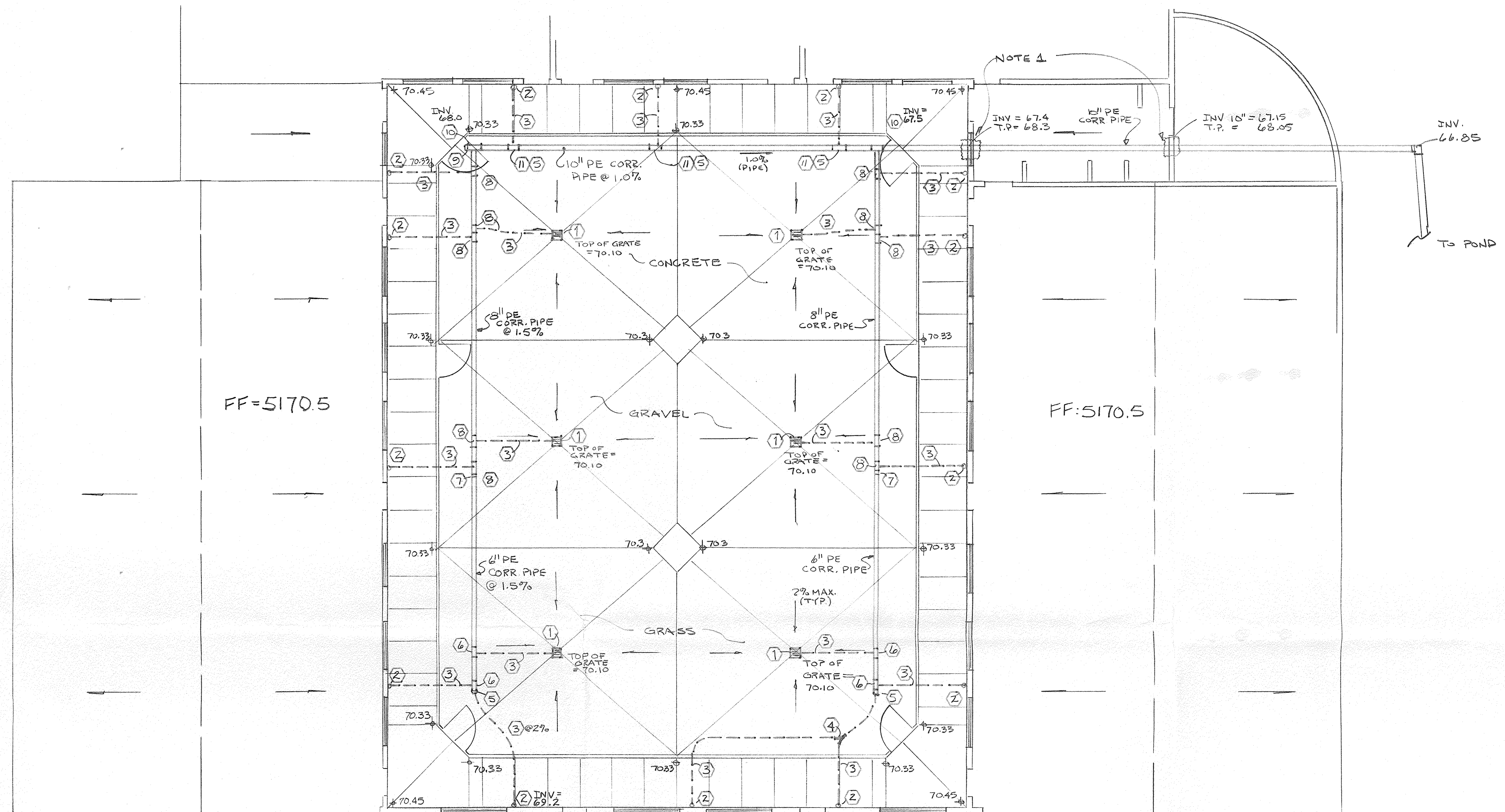
ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Avenue Street N.E.
Albuquerque
New Mexico
87107

OWNER'S
DR. ARTHUR S. WERSHAW & JOAN WERSHAW
CANINE COUNTRY CLUB & FELINE INN
7327 FOURTH STREET N.W.
ALBUQUERQUE, NEW MEXICO 87107

New building for:
CANINE COUNTRY CLUB
& FELINE INN
MARNA LYNN AVENUE
ALBUQUERQUE, NM 87107

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DATE:	DRAWN BY:	CHKD BY:

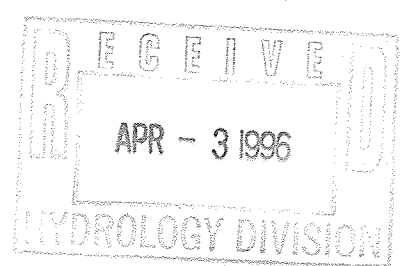


PIPE FITTINGS TABLE

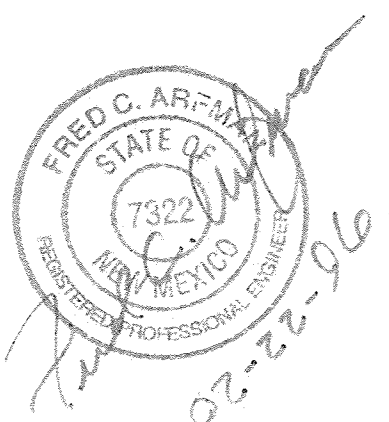
- 9" x 9" basin (NDS-901-4, 4" single outlet) with 9" x 9" grate (2-NDS 990-GRN, 4-NDS 999-Grey).
Note: Grout fill sump area to drain.
- 4" downspout adapter (ADS-465).
Note: Verify downspout compatibility with architectural plans and specifications. Install adapter and 4" ADS corrugated PE pipe prior to placement of PCC sidewalks.
- 4" diameter ADS corrugated PE pipe.
- 4" 45° "Y" (ADS-4"-422).
- 6"-4" reducing coupler (ADS-614).
- 6" x 6" x 4" reducing tee (ADS-644).
- 8"-6" reducing coupler (ADS-816).
- 8" x 8" x 4" reducing tee (ADS-844).
- 10" split end cap (ADS-1031).
- 10" x 8" reducing tee (ADS-1044).
- 10" x 6" reducing tee (ADS-1044).

NOTES:

- FOUNDATION FTG. TO ENCASE 10" ϕ PE PIPE (REINFORCE AS NECESSARY)



1/8"=1'-0"



Date
Designed
Checked

Isaacson & Arfman, P.A.
CONSULTING ENGINEERING ASSOCIATES
Albuquerque, New Mexico

COURTYARD DRAINAGE PLAN

CANINE COUNTRY CLUB
& FELINE INN

MARNA LYNN AVE. ALBUQUERQUE, NM

Sheet
2.2.1
of